

ABSTRACT OF THE DISCLOSURE

It is intended to reduce a size and a cost of a high-voltage power supply unit applied to an electrophotographic image forming apparatus and a neon billboard. The high-voltage power supply includes at least a high-voltage transformer and a driving circuit for driving the high-voltage transformer and supplies power to a load connected to a secondary side of the high-voltage transformer. The high-voltage power supply further includes: a high-voltage switching circuit for switching polarity of a DC output voltage generated on the secondary side of the high-voltage transformer; and a control circuit for controlling switching by the high-voltage switching circuit based on a load current that is caused to flow by application of the DC current output voltage.